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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Applicant:	)	Art Unit: 2188
	)	
Serial No.: 10/764,946	)	Examiner: Doan
	)	
Filed: January 26, 2004	)	HSJ920030237US1
	)	
For: SYSTEM AND METHOD FOR SELECTING	)	June 26, 2006
COMMAND FOR EXECUTION IN HDD BASED	)	750 B STREET, Suite 3120
ON BENEFIT	)	San Diego, CA 92101
	)	

APPEAL BRIEF

Commissioner of Patents and Trademarks

Dear Sir:

This brief is submitted under 35 U.S.C. §134 and is in accordance with 37 C.F.R. Parts 1, 5, 10,

11, and 41, effective September 13, 2004 and published at 69 Fed. Reg. 155 (August 2004). This brief is

further to Appellant's Notice of Appeal filed herewith.

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(1)   **Real Party in Interest**

The real party in interest is Hitachi Global Storage Technologies, Netherlands, B.V.

(2)   **Related Appeals/Interferences**

No other appeals or interferences exist which relate to the present application or appeal.

(3)   **Status of Claims**

Claims 7-10 and 12-18 have been allowed, Claims 3 and 6 have been indicated as being allowable, and Claims 1, 4, 5, and 14 have been finally rejected, which rejections are appealed. It appears that Claim 14, which depends from allowed Claim 12, should have been indicated as being allowed.

(4)   **Status of Amendments**

No amendments are outstanding.

(5)   **Summary of Claimed Subject Matter**

As an initial matter, it is noted that according to the Patent Office, the concise explanations under this section are for Board convenience, and do not supersede what the claims actually state, 69 Fed. Reg. 155 (August 2004), see page 49976. Accordingly, nothing in this Section should be construed as an estoppel that limits the actual claim language.

Claim 1 recites a hard disk drive (HDD) with at least one rotatable disk, reference numeral 12, figure 1; page 5, third to last line, and at least one data transfer element 14, _id_. A HDD controller, 28, figure 1;

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page 6, line 3 controls the data transfer element to execute commands in a queue. At least one command is

selected for execution based on an optimized throughput benefit (page 7 and figure 2), and/or an optimized

operation rate benefit (page 8 and figure 3), wherein the throughput benefit is determined based on a pipe

length, supra.

(6)   **Grounds of Rejection to be Reviewed on Appeal**

Claims 1, 4, 5, and 14 have been rejected under 35 U.S.C. §103 as being unpatentable over

Clegg et al., USPN 6,721,845. It appears that Claim 14, which depends from allowed Claim 12,

should have been indicated as being allowed.

(7)   **Argument**

As an initial matter, it is noted that according to the Patent Office, a new ground of rejection in an

examiner's answer should be "rare", and should be levied only in response to such things as newly presented

arguments by Applicant or to address a claim that the examiner previously failed to address, 69 Fed. Reg.

155 (August 2004), see, e.g., pages 49963 and 49980. Furthermore, a new ground of rejection must be

approved by the Technology Center Director or designee and in any case must come accompanied with the

initials of the conferees of the appeal conference, id., page 49979.

Clegg et al., col. 2, lines 25-30 and lines 45-65 discusses the advantages of writing sequential data

records into a disk cylinder before moving to another cylinder because arm movement is reduced, lines 25-30.

Also, Clegg et al. teaches that read requests addressed by linearly increasing block number advantageously

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has low latency when the requests are to a single disk, to data on the same or consecutive tracks, since

consecutive blocks are more likely to exist in the same cylinder, lines 45-50.

Thus, these sections of Clegg et al. indeed teach the advantages of reading and writing sequential

blocks, but not in a way that implicates the length of the blocks, much less the length of a pipe (defined in

the specification to be the commands in the queue of the controller, page 6.) In contrast, and leaving aside

for the moment whether Clegg et al. actually determines a throughput benefit, Claim 1 explicitly requires

more than what is contemplated by Clegg et al., namely, determining a throughput benefit based at least in

part on a pipe *length*. Clegg et al. contemplates operations based only on data proximity, not on data length.

That close data inherently has a "length" does not mean that Clegg et al. actually uses the length in its

calculations as is otherwise recited in Claim 1, and indeed Clegg et al. evidently does not use the length of

anything, but rather only proximity.

Accordingly, it is respectfully submitted that Clegg's teaching of using data proximity to read and

write regardless of the amount or length of the data manifestly is not the same thing as using the length of

anything, much less a pipe of commands. That is, because "proximity" does not equal "length", Claim 1 is

patentable.

The examiner has responded to the above explanation of Clegg et al. with a citation to the present

specification. The present specification is not part of the prior art. The examiner attempts to draw parallels

between the relied-upon portions of Appellant's own specification and Clegg et al., col. 2, line 55 to col. 3,

but must do so only by a leap of logic: "thus it is advantageous to access sequential data blocks all together."

But still length is not implicated. The above quoted portion of the final rejection is followed by what appears

to be another leap: "The length of the data blocks corresponding the pipe length in the claims" (sic). As best
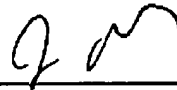
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understood, the examiner appears to be alleging that because sequential data blocks in Clegg et al. inherently

have a length, then that equates to an actual suggestion to use the length to determine a throughput benefit

as required by Claim 1, but of course this is simply a restatement of the syllogism that proximity equals

length, the falsity of which has been revealed above.

Respectfully submitted,

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APPENDIX A - APPEALED CLAIMS

1.   A hard disk drive (HDD) comprising:

at least one rotatable disk;

at least one data transfer element; and

at least one HDD controller controlling the data transfer element to execute commands in a queue, at least one command being selected for execution based on at least one of: an optimized throughput benefit, or an optimized operation rate benefit, wherein the throughput benefit is determined based at least in part on a pipe length.

3.   The HDD of Claim 1, wherein the throughput benefit is related to a pipe length divided by the sum of a pipe length, a seek time, and an extra time.

4.   The HDD of Claim 3, wherein a pipe length is a length of the sequential pipe of commands in at least one of: servo identifications (SIDs), and number of blocks in a pipe.

5.   The HDD of Claim 1, wherein the operation rate benefit is determined based at least in part on a number of commands in a pipe.

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APPENDIX B - EVIDENCE

None (this sheet made necessary by 69 Fed. Reg. 155 (August 2004), page 49978.)

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APPENDIX C - RELATED PROCEEDINGS

None (this sheet made necessary by 69 Fed. Reg. 155 (August 2004), page 49978.)

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